

Abstract:

The device (10), for the continuous generation of cold and heat by magneto-calorific effect, comprises a mixture of a heat exchange fluid and particles made from at least one magneto-calorific material, superconductor or phase-change material circulating through a first heat exchanger (11) subject to a magnetic field generated by magnetic device (14), associated with the first heat exchanger (11). On passing into the generated magnetic field, the particles undergo an increase in temperature and heat the mixture in the first heat exchanger (11) and on leaving the magnetic field, the particles undergo a reduction in temperature to cool a mixture entering a second heat exchanger (12). A cold circuit (16) extracts the cold from the second heat exchanger (12) and a hot circuit (15) extracts the heat from the first heat exchanger (11).